

ADDITIONS TO SOME NOTES ON THE FLORA
OF THE SOUTHERN STATES, PARTICULARLY
ALABAMA AND MIDDLE TENNESSEE¹

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Some new or otherwise interesting geographic records of vascular plants have been obtained through field work in Alabama and the middle counties of Tennessee, during 1972 and 1973. Additional information comes through other field trips and through records at the Herbarium of Vanderbilt University.

Most of the synonyms listed in this study are from J. K. Small, *Manual of the Southeastern Flora* (1933); some other synonymy is also provided. Many of the records are the result of checking my own collections against material on deposit at Southern Methodist University. Complete sets of these collections will be on deposit at the Herbarium, Vanderbilt University, with duplicates distributed elsewhere.

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In the preparation of a previous paper (Kral, 1973) I failed to process materials donated to VDB by two excellent field botanists, and therefore did not give proper credit to them for their discoveries of the following species in Alabama: *Amsonia ciliata* Shuttlw. GENEVA CO.: 8 mi s. of Samson, abundant in *Taxodium ascendens*-*Nyssa biflora*-*Cyrilla* swamp, 9 May 1967, S. McDaniel 8923. *Monarda clinopodia* L. TUSCALOOSA CO.: ravine north of bridge over North River, 9.35 mi. along rte. 82, 11 Jun. 1970, R. W.

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Simmers 1968. *Valerianella pauciflora* Michx. MADISON CO.: bottomland near bridge, e.n.e. New Market in Long Cove Quad, 29 Apr. 1971, *R. W. Simmers* 2296.

These records all predate my own, so that proper credit for discovery in Alabama of these species should have been given. My failure to do this is poor repayment for the kindness of the collectors in sending me specimens.

***Marsilea vestita* Hook & Grev.**

ALABAMA. MOBILE CO.: abundant escape in sandy lots, s. side of old Mobile in negro district ca. 0.5 mi. so. Government Blvd.; forming solid patches along old sidewalks and drives, 2 Jun. 1972, *Kral* 47120.

This pepperwort was stated by Small (1938) to be introduced in central peninsular Florida. It occurs naturally in Texas to British Columbia and Kansas, and in Mexico. The Mobile population appears definitely to be an escape from cultivation and was spreading quite successfully, but urban "renewal" in this same area appears to have wiped it out by 1973. The plants were thriving on quite dry situations, producing an abundance of sporocarps. Dry conditions appear to be necessary for its good growth in the Vanderbilt greenhouse.

***Festuca dertonensis* (All.) Aschers & Graebn.**

ALABAMA. PICKENS CO.: sandy roadbanks, by Ala. 17, 2 mi. n. Aliceville, 28 May 1972, *Kral* 46788.

This fescue, an adventive from Europe, has been found in the northeastern and southwestern United States, with some new stations having been reported from Louisiana, Virginia, and Florida. There is no prior record of it from Alabama.

***Eragrostis intermedia* Hitchc.**

ALABAMA. SUMTER CO.: chalk bluffs, clearing above Tombigbee River, n. of Epes, 5 Oct. 1972, *Kral* 48760.

The Plains Lovegrass is essentially a plant of dry prairies in the southwest. According to Hitchcock (1950), it has been found in Georgia, but there is no prior record of it for Alabama.

***Chloris virgata* Swartz**

ALABAMA. MOBILE CO.: sandy dock loading area by Mobile Bay, south side of Mobile, 10 Oct. 1972, *Kral* 49078.

Hitchcock (1950) reports this essentially western United States weed has been sparingly introduced eastward (Florida to North Carolina in the southeast). This appears to be a first record for Alabama.

***Sporobolus neglectus* Nash**

ALABAMA. DALLAS CO.: chalk hills just n. of old Cahba, s.w. of Selma, 6 Oct. 1972, *Kral* 48826.

Probably an extension southward from Tennessee of this southwestern, midwestern and northern weed.

***Gymnopogon chapmanianus* Hitchc.**

GEORGIA. CHARLTON CO.: sandy, logged slash pineland 5 mi. n. MacClenny on Ga. 185, 13 Sept. 1973, *Kral* 51634.

Seemingly a first record for Georgia of this species known from sandy pinelands in Florida.

***Phalaris arundinacea* L.**

TENNESSEE. OBION CO.: big tufts at edge of sunny slough by Tenn 22 at east side of Union City, 18 Jun. *Kral* 47356.

Indicated as "introduced but not cultivated" for Tennessee by Sharp *et al.* (1960). Not listed for Tennessee by Hitchcock and Chase. This population is fairly large, and appears to be effectively naturalizing.

***Panicum helleri* Nash**

ALABAMA. FRANKLIN CO.: disturbed limestone glade ca. 2 mi. n. Russellville, 17 May 1968, *Kral* 30591. GREENE CO.: chalk prairie by county 19, ca. 4.6 mi. s.e. Boligee, 18 May 1973, *Kral* 50077.

Presumably a first record for this essentially southwestern panic-grass. This and *Panicum scribnerianum* Nash, a more wide-spread species, are extremely close taxonomically, may actually be the same. In any case, neither has been reported for Alabama.

Setaria sphacelata (Schum.) Stapf. & C. E. Hubb.

ALABAMA. MOBILE CO.: sandy dock landing area by Mobile Bay, s. side of Mobile, 10 Oct. 1972, *Kral* 49077.

An African introduction which according to Hitchcock and Chase has escaped cultivation in California (Stanislaus and Kern counties). This appears to be a first record for it in the southeastern United States. It appears to be spreading onto sandy lots in the city of Mobile, in that I have seen it in additional localities there in 1973. A description of a very similar plant is given by Mohr (1901) under the name *Chaetochloa gracilis* (H.B.K.) Scribn. & Merrill, based on collections by Mohr in Mobile. This last is in the synonymy of *Setaria geniculata* (Lam.) Beauv., which might be an indication of a nomenclatural problem yet to be resolved. My own specimens agree with Californian material of *S. sphacelata* deposited at the Herbarium, SMU.

Andropogon mohrii (Hack.) Hack. ex Vasey

FLORIDA. FRANKLIN CO.: sandy peat of pineland savanna by Fla. 65, 18.6 mi. s. Sumatra, 13 Oct. 1973, *Kral* 52387.

This constitutes a first report for this grass for Florida; presumably it is an extension southward from the pine barrens of Alabama or Georgia.

Heteropogon contortus (L.) Beauv. ex R. & S.

FLORIDA. MARTIN CO.: sandy slash pine lot and roadbank near Stuart Police Dept. grounds, Stuart, 21 Jan. 1972, *Kral* 45071.

This perennial weed has been reported by Hitchcock from the southwestern United States. It is a frequent weed in Latin America and in the old world tropics. This is a first record of it for the southeastern United States.

Dichromena colorata (L.) Hitchc.

ALABAMA. SHELBY CO.: ca. 1 mi. s. Harpersville by Ala. 25; wet open swale by creek, 11 Aug. 1973, *Kral* 51160.

ST. CLAIR CO.: ca. 5 mi. n.e. Leeds by US 411; low cleared area over limestone, 13 Jul. 1972, *Kral* 47686.

Already reported for an inland station in Alabama (*Kral*, 1973) but these stations are so much farther inland in the Appalachians as to merit mention here. Mohr long ago indicated its occurrence as far inland as Scottsboro.

Carex aestivalis M. A. Curtis

ALABAMA. JACKSON CO.: sandy woods, s.w. facing slope of mountain by Ala. 146, s. of Estill Fork, 14 Apr. 1973, *Kral* 49566.

An extension southward from Tennessee.

Carex eburna Boott

ALABAMA. BIBB CO.: shelves of steep limestone bluff on Cahaba River near Pratts Ferry, *R. M. Harper* 3552; on limestone bluff over Cahaba River at site of former Pratts Ferry, near route 27 bridge, 17 Apr. 1973, *J. A. Churchill* 73-4170.

This slender, caespitose *Carex* has been thought previously to extend southward only to Virginia, Tennessee, Missouri and Nebraska. The Pratts Ferry locality represents a sizeable extension southward.

Carex gracilescens Steud.

C. laxiflora Lam. var. *gracillima* (Boott) Robins. & Fern.

ALABAMA. MARSHALL CO.: Bucks Pocket State Park; sandrock slopes of ravine along trail to boat landing & picnic area by reservoir, 15 Apr. 1973, *Kral* 49630.

Dr. McDaniel has informed me of still further (and older) records for this species in Alabama: GREENE CO.: wooded ravine just north of Knoxville, 20 Mr. 1938, *Harper* 3620 (US); LAUDERDALE CO.: near top of rocky bluff facing north, on Indian Camp Creek, ca. 4 mi. south of Pruitton, 13 Apr. 1935, *Harper* 3327 (US); MADISON CO.: calcareous rather open woods on west slope of Pantherknob, on eastern spur of Monte Sano, 24 Apr. 1940, *Harper* 3782 (MO, US).

Carex microdonta Torr. & Hook.

ALABAMA. CLARK CO.: calcareous glade by US 84, 3.6 mi. w. Gosport, 31 May 1972, *Kral* 47027. HALE CO.: prairie remnant by Ala. 69, 1.8 mi. s. Greensboro, 29 May 1972, *Kral* 46845.

Further county records for this sedge of the western grasslands reported as new for Alabama in my previous article (1973).

Carex pedunculata Muhl.

ALABAMA. JACKSON CO.: north facing, essentially calcareous bluff above Estill Creek, north of Estill Fork near where gravel road fords creek, 14 Apr. 1973, *Kral* 49546.

This distinctive carex, hitherto not reported for Alabama, represents a considerable range extension southward for a species said by Gleason (1952) to be of rich woods and calcareous soil, Newfoundland to Minnesota and South Dakota, s. to Virginia, West Virginia and Iowa and to be "abundant in the Great Lakes Region".

Carex prasina Wahl.

ALABAMA. COLBERT CO.: shaded creekbanks, in shallow water on Bear Creek Ranch, s.w. side Littleville, 27 May 1972, *Kral* 46736.

A distinctive member of the sect. *Gracillimae*, hitherto not reported for Alabama, and probably an extension southward from middle Tennessee where it is not rare along streams of cool, steep-sided ravines.

Carex purpurifera Mackenzie

C. laxiflora Lam. var. *purpurifera* (Mackenzie) Gl.

ALABAMA. JACKSON CO.: richly wooded bluff, 9 mi. s. Huntland by Ala. 65, 28 Apr. 1972, *Kral* 45790. MADISON CO.: north facing slope south of Rocky Branch, King Cove Quadrangle area, 9 Apr. 1971, *R. W. Simmers* 2209; 29 Apr. 1971, *R. W. Simmers* 2278.

An extension southward from Tennessee for this carex, which is perhaps doubtfully distinguished from *C. graci-*

lescens Steud. The latter has shorter perigyna and narrower pistillate bracts, but otherwise seems much the same. Dr. McDaniel informs me that he has seen earlier records for Alabama, namely MARSHALL CO.: among limestone rocks in rich woods around sink in Fletchers Hollow, west of Grant, 19 Apr. 1935, *Harper* 3345 (US).

***Lachnocaulon anceps* (Walt.) Morong**

TENNESSEE. CUMBERLAND CO.: open, sphagnous, boggy bottom by Interstate 40, 3 mi. e. jct. US 127, the Crossville exit, 2 Aug. 1973, *R. & G. Kral* 50961.

An extension northward from Alabama for this essentially coastal plain genus. This species, together with *Eriocaulon decangulare* L. is occasional in acid seeps in northeastern Alabama.

***Juncus brachycephalus* (Engelm.) Buch.**

GEORGIA. GORDON CO.: 14 mi. s. Chatsworth by US 411; sunny seep, 8 Sept. 1973, *Kral* 51520.

A first report for Georgia for this rush which, according to Gleason (vol. 1, p. 396, 1952) is found "in wet meadows and sandy shores, Me. to n. Ont. and Minn., s. to Pa., O., and Ind." It was recently reported for Tennessee by Kral (1973).

***Pleea tenuifolia* Michx.**

ALABAMA. BALDWIN CO.: longleaf pineland bog ca. 2 mi. w. of Seminole, 9 Oct. 1972, *Kral* 49003.

A first published report for this species for Alabama, and probably an extension from nearby Florida. First found in this locality by Dr. S. McDaniel (3 mi. west of Seminole, common in *Sarracenia* bog, *McDaniel* 3916).

***Lilium regale* Wils.**

ALABAMA. LAMAR CO.: by Ala. 17, in gravelly roadside and scattered through adjacent oak-pineland, 3.9 mi. s. Hamilton, 16 Aug. 1973, *Kral* 51377.

An evident escape from cultivation, but so successfully spreading as to deserve mention here. The narrowly fun-

nelform, large perianths are horizontal to somewhat nodding on the pedicels and toward dusk (which was when I collected vouchers) emit an extremely heavy, sweet fragrance.

***Arabis hirsuta* (L.) Scop.**

TENNESSEE. RUTHERFORD CO.: cut-over cedar woods and adjacent limestone glades by Interstate 24, 13 mi. n.w. jct. US 231, the Murphreesboro exit, 27 Apr. 1973, *Kral* 49729.

A first record for Tennessee for this rock-cress. In character of trichomes (which are sparse) it appears closest to the var. *adpressipilis* (Hopkins) Rollins. The population is a large one and doubtless more will be found in the limestone barrens of middle Tennessee.

***Erysimum capitatum* (Dougl.) Greene**

E. arkansanum Nutt.

TENNESSEE. PUTNAM CO.: limestone bluffs above the Caney Fork River by Interstate 40, 9 mi. e. jct. Tenn. 53 (the Gordonsville-Carthage exit), 27 Apr. 1973, *Kral* 49699.

A first record for Tennessee, and a fairly wide disjunction either eastward from Missouri or southward from southern Illinois. A very handsome plant, the flowers deliciously fragrant, the petals a deep orange-red.

***Potentilla intermedia* L.**

TENNESSEE. DAVIDSON CO.: cindery sands of railroad yards, downtown Nashville, 30 Aug. 1973, *Kral* 51491.

An introduced weed from Europe with scattered localities from Quebec southward to Michigan and Virginia. A first record for Tennessee.

***Trifolium vesiculosum* Sari**

ALABAMA. PIKE CO.: highway shoulder of US 231, n.w. side of Troy above Conecuh River bottoms, 6 Jun. 1972, *Kral* 47355. BUTLER CO.: north side Greenville; sandy highway shoulders, 19 May 1973, *Kral* 50171. SHELBY CO.:

just e. of Bibb Co. line, e. of Green Pond and Turner; sandy road shoulders, 21 May 1973, *Kral* 50295. WILCOX CO.: by Ala. 10, road embankment ca. 2 mi. e. Ala. 5, and w. of Camden, 8 Jun. 1973, *Kral* 50442.

Already reported by Kral (1973) for Alabama, but these localities are added to indicate the success of this species as a new weed of roadsides in the state.

***Dalea alopecuroides* Willd.**

TENNESSEE. HUMPHRIES CO.: sandy roadbank and adjacent fields, Tennessee Ridge road, south end, ca. 9 mi. n. of Waverly, 6 Sept. 1972, *Kral* 48361.

Mahler (1970) excludes this species from the Tennessee Flora, indicating that the Gattinger (1901) report of its abundance in western Tennessee was possibly in error. While this writer has seen but one population, it was a large one extending for at least two miles along the road and in adjacent fields, and therefore there is some indication that the species might naturalize successfully on a local scale.

***Anoda cristata* (L.) Schlecht.**

TENNESSEE. STEWART CO.: just s.e. Dover on silty sandy backwater shores of Lake Brakley, 4 Oct. 1973, *Kral* 52242.

An extension of known range southward from Kentucky. According to Gleason (1952) this weed of the southwestern states, Central America and South America is reported as a waif around woolen mills in the east, also in Missouri and Iowa. This is a first record for Tennessee.

***Hibiscus coccineus* Walt.**

ALABAMA. COVINGTON CO.: sandy banks and shallows of Open Pond, Blue Springs Game Mgmt. area, Conecuh National Forest, s.w. Andalusia, 17 Jul. 1970, *Kral* 40079.

This bright-red flowered *Hibiscus*, frequently cultivated, has been known in the wild in the United States only from peninsular Florida, according to Duane Wise, monographer of the genus. The plants of the Alabama locality were

growing mostly in the shoals of a natural, limesink pond, this at a considerable distance from any evident habitation.

Ludwigia polycarpa Short & Peter

Isnardia polycarpa Kuntze

ALABAMA. COVINGTON CO.: very abundant, but one stand only, in peaty ditch, pine flatwoods, beside county 42, 15 mi. e. Brooklyn, 1 Sept. 1970, *Kral* 40992.

A first report for Alabama of this species, hitherto known from Massachusetts and Connecticut, Ontario to Tennessee and Kansas.

Oenothera grandiflora Ait.

TENNESSEE. MARION CO.: by Interstate 24E, just 1 mi. s.s.e. Monteagle; rocky bluffs above highway, 10 Jul. 1972, *Kral* 47557.

This population, spectacular when in bloom because of the large pale yellow corollas, is a first definite record for Tennessee of a species known in the wild only from the Mobile delta country of Alabama. The Tennessee specimens fit the type description perfectly having sepal lobes well over 3 cm long, filiform-tipped, and the corollas when pressed fully 9-10 cm broad.

Oenothera heterophylla Spach

Rehmannia heterophylla (Spach) Rose

ALABAMA. GREENE CO.: sandy railroad right of way, bottoms of Tombigbee River, just n. of US 11 crossing north of Epes and s. of Bolegee, 18 May 1973, *Kral* 50093. PICKENS CO.: sandy borrow pit by Ala. 17, ca. 4 mi. s. Aliceville, 3 May 1972, *Kral* 46243. SUMTER CO.: sandy clay field 5.2 mi. s. Dancy, 3 May 1972, *Kral* 46386.

The large size of the petals of the Alabama plants together with the comparatively long sepal tips, definitely distinguish them from *Oe. rhombipetala* which has been reported adventive to the east, and which is perhaps to be looked for in Alabama. According to Munz (1965) this species has been known, prior to the Alabama finds, only from eastern Texas and Calcasieu Parish, Louisiana.

Cornus purpusi Koehne

TENNESSEE. HUMPHRIES CO.: shrub of gravelly bottoms of Richland Creek ca. 7 mi. n.e. Waverly, 6 Sept. 1972, *Kral* 48363.

Another middle Tennessee record for this shrub reported as new for Tennessee by Kral (1973).

Perideridia americana (Nutt.) Reichenb.

Eulophus americanus Nutt. ex DC.

ALABAMA. COLBERT CO.: mesic woods by small limestone outcrop by Natchez Trace Parkway, ca. 5.5 mi. s.w. Colbert Park, 26 May, 1972, *Kral* 46666.

A species that appears to frequent limestone outcrop areas, mostly in the plains states and Ozarks, very rare in middle Tennessee, and now reported from this northwestern county of Alabama.

Lysimachia quadriflora Sims

Steironema quadriflorum (Sims) Hitchc.

ALABAMA. JEFFERSON CO.: south side of Leeds; wet limestone barren by Ala. 119, 13 Jul. 1972, *Kral* 47671. ST. CLAIR CO.: ca. 5 mi. n.e. Leeds by US 411; low grounds, 13 Jul. 1972, *Kral* 47686.

Additional county information on this species, recently reported as new for Alabama (Kral, 1973).

Eustoma exaltatum (L.) Griseb.

ALABAMA. MOBILE CO.: south side Mobile, in docks area on moist sands just n. of n. boundary of old Air Force Base, 15 Aug. 1973, *Kral* 51346.

A first record for Alabama of this striking annual which hitherto has been known in the United States only from the coasts of Florida and Texas. This population consisted of many hundreds of individuals. It has also been collected from Louisiana and Mississippi in recent years.

Sabatia grandiflora (A. Gray) Small

ALABAMA. HOUSTON CO.: edge of limesink pond by county 4, ca. 5 mi. w.n.w. Chattahoochee State Park entrance, 8 Oct. 1972, *Kral* 48950.

Dr. Wilbur (1955) reports this species for peninsular Florida and western Cuba. However, since his revision was published, the species has been found to be quite frequent in the Florida panhandle, and the above collection now adds Alabama to its range.

***Ipomoea cairica* (L.) Sweet**

ALABAMA. MOBILE CO.: sandy area by boat docks along bay, edge of negro sector and s. of Government Street, 2 Jun. 1972, *Kral* 47114.

This native of Africa is reported in Small as only from Florida for the United States. The corolla limb is a pale lavender, this grading into an almost white throat and tube.

***Blephilia hirsuta* (Pursh) Benth.**

ALABAMA. JACKSON CO.: abundant on sunny moist bluffs above creek, ca. 9.2 mi. s. Huntland, 11 Jul. 1972, *Kral* 47574.

While *Blephilia ciliata* ranges widely through the southeast, this species appears to be confined to the mountain districts in the south. I know of no other records for it in Alabama.

***Stachys agraria* Cham. & Schlecht.**

ALABAMA. MONTGOMERY CO.: sandy low rise in low pasture by Loop bypass, s. side Montgomery, 1 May 1972, *Kral* 46142.

Small (1933) reports this as introduced into the coastal plain of Alabama, with a main range extending from Louisiana into Texas. This locality adds to the limited information about the species in Alabama.

***Synandra hispidula* (Michx.) Britt.**

***Synandra grandiflora* Nutt.**

ALABAMA. JACKSON CO.: locally abundant in rocky wet ravine above Ala. 65, 9 mi. s. Huntland, 28 Apr. 1972, *Kral* 45795.

This showy mint, hitherto not reported for Alabama, is stated in Small (1933) as being in the Interior Low Plateau and adjacent provinces, Tennessee to Illinois, Ohio and Virginia.

Agalinis heterophylla Small

Gerardia heterophylla Nutt.

ALABAMA. MARENGO CO.: chalk glades, w. side Demopclis by US 80, 6 Oct. 1972, *Kral* 48870. GREEN CO.: prairie remnant, 7.4 mi. n.n.e. Prairieville by Ala 69, 20 Sept. 1971, *Kral* 44454. HALE CO.: chalk prairie by US 80, 0.5 mi. w. Prairieville, 6 Oct. 1972, *Kral* 48858; prairie remnant by county 61, ca. 8.5 mi. n. Uniontown, 6 Oct. 1972, *Kral* 48854. SUMTER CO.: chalk prairie, by Ala. 17, 8.7 mi. s. Dancy, 5 Oct. 1972, *Kral* 48777.

The Prairie Agalinis, according to Correll & Johnston (1970) is supposed to range from Missouri and Oklahoma to Louisiana and Texas. My records, therefore, constitute a first report for Alabama, an easternmost disjunction. Superficially it resembles *Agalinis purpurea*, but is coarser, stiffer, with broader leaves and quite elongate calyx lobes.

Penstemon multiflorus Chapm.

ALABAMA. BALDWIN CO.: sandy longleaf pineland, clearing by highway, Seminole, 10 Jun. 1973, *Kral* 50478. COVINGTON CO.: sandy bank by county 4, ca. 8 mi. w. Florala, 8 Jun. 1969, *Kral* 35164.

This species is easily distinguished by its pouch-like anthers which dehisce by short proximal slits, and by its relatively long inflorescence branches. According to Small (1933) its range is confined to Florida and south Georgia.

Galium parisiense L.

ALABAMA. SUMTER CO.: north side of Epes by US 11 crossing of Tombigbee River; exposed chalk bluff area, 18 May 1973, *Kral* 50109.

To my knowledge a first record for Alabama of this European weed, which is locally abundant in the limestone glades of middle Tennessee.

***Galium virgatum* Nutt.**

ALABAMA. FRANKLIN CO.: limestone glades at Isbell, 27 May 1972, *Kral* 46768. SUMTER CO.: 7 mi. n. Livingston; chalk prairie by US 11, 18 May 1973, *Kral* 50115.

This bedstraw of calcareous Ozarkian areas, locally abundant in the limestone barrens of middle Tennessee, has not been reported previously for Alabama.

***Dyschoriste oblongifolia* (Michx.) O. Kuntze**

Ruellia oblongifolia Michx.

ALABAMA. HENRY CO.: longleaf pine sandhills 3.6 mi. n.n.e. Abbeville beside county 46, 2 May 1972, *R. Kral* 46213. HOUSTON CO.: sandy edge of field in longleaf pineland ca. 1 mi. w. Columbia by Ala. 52, 2 May 1972, *R. Kral* 46182.

This species, frequent in sandy longleaf pinelands from Florida north to coastal plain South Carolina (possibly in southeastern Virginia), has been reported for Alabama by Kobuski (1928) on the basis of a Buckley record which lacks date and locality. A specimen of it collected by Mohr from the Mobile area is in the Mohr herbarium, but is identified as a *Ruellia* and was not cited by him in his *Flora*. In that it is not recorded for the state of Alabama in current manual treatments, these collections give it genuine status for the Alabama flora.

***Ruellia brittoniana* Leonard**

GEORGIA. GRADY CO.: banks of ditch, north side of Cairo, 8 Aug. 1972, *Kral* 47962.

This handsome species, erroneously treated by Small (1933) as *Ruellia malacosperma* Greenm., hitherto has been known only from the lower coastal plain from Florida into Texas.

***Lobelia glandulosa* Walt.**

ALABAMA. HOUSTON CO.: edge of limesink pond by county 4, ca. 5 mi. w.n.w. Chattahoochee State Park entrance, 8 Oct. 1972, *Kral* 48948.

This species, not previously reported for Alabama, is cited by McVaugh (1936) from wetlands in pines, Florida to southern Virginia, with doubtful records from Mississippi and Texas.

Valerianella dentata (L.) Poll

TENNESSEE. TROUSDALE CO.: north banks of Cumberland River by Tenn. 141 0.5 mi. s. Hartsville; pastured limestone bluff area, common, 4 May 1973, *Kral* 49797.

This species has been reported previously from Alabama (GREENE CO.: Eutaw, *R. Harper* 3148. CLARKE CO.: W. Duncan) and Tennessee (DAVIDSON CO.: Una J. Cibulka 130) by Dr. Donna Ware (1969), but was excluded by her in her treatment of *Valerianella* in North America because of uncertain establishment of this waif. However, the Trousdale locality has the species in abundance and it should be looked for in similar localities in Alabama and Tennessee. *Valerianella dentata* differs from other valerianellas of the area in its narrower leaves, in its irregular, ovate, toothlike prolongation of the calyx, and in its strigillose carpel bodies, the hairs of which are incurved. The corollas have tube and throat narrowly funnelform, and range from pale lavender to pink.

Elephantopus spicatus Juss. ex Aubl.

Pseudoelephantopus spicatus (Juss.) Rohr

FLORIDA. MARTIN CO.: weed of Owen's Grove, Indian-town; sandy ground in orange grove and in hammock edges, 22 Jan. 1972, *Kral* 45089; 19 Jan. 1973, *Kral* 49264.

Dr. Sidney McDaniel and Dr. Jerry Clonts of Mississippi State University have kindly informed me that this is not a first report for the United States, the species having been collected in and reported for south Florida by Dr. S. F. Blake (1948). It is, however, not reported by Drs. Long and Lakela in their current *Flora of Tropical Florida* (1971); this new locality for it is cited merely to verify the continued presence of the species in Florida.

***Eupatorium leptophyllum* DC.**

ALABAMA. COVINGTON CO.: Blue Pond, Blue Springs Game Mgmt. area, Conecuh Nat. Forest s.w. Andalusia, 3 Oct. 1971, *Kral* 44742; HOUSTON CO.: edge of limesink pond by county 4, ca. 5 mi. w.n.w. Chattahoochee State Park entrance, 8 Oct. 1972, *Kral* 48952.

Dr. R. K. Godfrey, current monographer of *Eupatorium* for North America has indicated to me that, whilst Small (1933) indicated the range of *E. leptophyllum* as extending from Florida to Mississippi and South Carolina, he had no record of its occurrence in Alabama. Mohr cited it as being of rather general distribution in lower coastal plain Alabama, but this might involve some error in identification since the species appears more confined to the limited rash of limestone "solution" ponds in south Alabama.

***Liatris cylindracea* Michx.**

ALABAMA. BIBB CO.: ca. 5 mi. n. Centerville by jct. Ala. 219 and Ala. 5; calcareous rocky clearing in longleaf pineland, 8 Oct. 1973, *Kral* 52262.

Gaiser (1946) reports this species as occurring from southern Ontario and western New York westward to Minnesota and Missouri, so this find is a significant disjunction. The species is unmistakable, combining a plumose pappus with a cymose-racemose inflorescence and closely appressed rounded phyllaries.

***Heterotheca latifolia* Buckley**

TENNESSEE. DAVIDSON CO.: cindery sands of railroad yards, downtown Nashville, 30 Aug. 1973, *Kral* 51501. SHELBY CO.: stabilized sandy areas on Presidents Island, P.O. Memphis, 25 Oct. 1952, *Demaree* 33188.

The range of this camphor-weed appears to be rapidly expanding in the mid-south. In the southeastern and Gulf coastal plain it is becoming one of the most abundant weeds of sandy old fields and along roadsides. The two above-cited collections verify its presence as a weed in middle and western Tennessee.

Heterotheca pilosa (Nutt.) Shinnery

Chrysopsis pilosa Nutt. (not *C. pilosa* (Walt.) Britt.)

TENNESSEE. LAWRENCE CO.: sandy clay field ca. 5 mi. s.s.w. Summertown, 14 Sept. 1972. *Kral* 48412.

A first report for Tennessee for this tall, annual camphor-weed. Sharp et al. (1960) report *Chrysopsis pilosa* (Walt.) Britton from several counties in Tennessee, but this report is based on a species whose actual name is *Heterotheca camporum* (Greene) Shinnery, our commonest weedy perennial camphor-weed. The actual *H. pilosa* is most abundant west of the Mississippi River in sandy open places from Missouri south to Louisiana and Texas.

Ambrosia bidentata Michx.

TENNESSEE. LAWRENCE CO.: gravelly pasture off US 43, just s. of Summertown, 27 Jul. 1972, *Kral* 47819.

An additional record for this species in Tennessee (see *Kral*, 1973, p. 407). Its spread in the state appears assured.

Rudbeckia mollis Ell.

ALABAMA. HOUSTON CO.: north side of Dothan; sandy edge of oak-pine hammock, 12 Aug. 1973, *Kral* 51183.

An additional county record in Alabama for this *Rudbeckia* which before was known only from Florida and Georgia (see *Kral*, 1973, p. 407).

Dyssodia aurea (Gray) A. Nels.

Hymenatherum aureum (Gray) Gray

ALABAMA. MOBILE CO.: dry sandy area of Mobile docks, just north of north boundary of old Air Force Base, 15 Aug. 1973, *Kral* 51347.

In regard to pappus character my specimens are intermediate between the var. *aurea* and var. *polychaeta* (Gray) M. C. Johnston as they are described by Dr. Strother (1969). This is a first report for Alabama for this plant of the high plains of the western United States and northern Mexico. The Mobile population covers at least an acre, the locality being shared by *Helenium amarum* and *Eustoma exaltata*.

Lactuca saligna L.

ALABAMA. LIMESTONE CO.: calcareous banks of Interstate 65, 0.5 mi. n. Holland Gin, 26 Sept. 1972, *Kral* 48563. MORGAN CO.: gravelly highway shoulder by backwater bottom of Flint Creek, Lacon, 8 Oct. 1973. *Kral* 52280.

A first report for Alabama, the species is probably moving southward from Tennessee in the limestone districts where it abounds. A native of Europe.

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